# V.A.5.N.d.400. BROMUS INERMIS SEMI-NATURAL HERBACEOUS ALLIANCE

Smooth Brome Semi-natural Herbaceous Alliance

## BROMUS INERMIS - (PASCOPYRUM SMITHII) SEMI-NATURAL HERBACEOUS VEGETATION

Smooth Brome - (Western Wheatgrass) Semi-natural Herbaceous Vegetation

### ELEMENT CONCEPT

**GLOBAL SUMMARY: NOTE:** This is the closest association in the NVC to that which occurs at Florissant Fossil Beds National Monument. It may not be the same association, but the authors include it as an informational reference.

This smooth brome grassland type occurs widely throughout the northern Great Plains and on relatively mesic sites in the semi-arid interior western United States, and perhaps more widely in the midwestern U.S. and Canada. Stands can occur in a wide variety of human-disturbed habitats, including highway rights-of-way, jeep trails, etc. The type is also widely planted for revegetating disturbed land, pasture, and hay fields, and has escaped into a variety of habitats including prairie, riparian grasslands, and mesic mountain meadows. In Montana, this community types occurs on elevation ranges from 1100-2050 m (3590-6700 feet) with best examples on mesic alluvial terraces. This grass grows best on moist, well-drained, finer-textured loam and clay loams and does not tolerate prolonged flooding. The vegetation is dominated by medium-tall (0.5-1 m) graminoids. The dominant grass is *Bromus inermis*, a naturalized species from Eurasia, that forms moderately dense to dense stands that often develop into mono-cultures. Other weedy species such as *Cirsium arvense* may occur as well, but native species are generally less than 10% cover. Native species may include mixed-grass prairie and montane meadow grasses, such as *Pascopyrum smithii, Deschampsia caespitosa*, and *Hesperostipa comata (= Stipa comata)* and sparse, scattered mesic shrubs such as *Symphoricarpos* spp. as well as many others. However, the native species are not conspicuous enough to identify the native plant association that could occupy the site or the stand would be typed as such.

### ENVIRONMENTAL DESCRIPTION

**USFWS Wetland System:** Upland

**Florissant Fossil Beds NM Environment:** This semi-natural herbaceous vegetation forms nearly pure stands along Teller County 1, southern Grape Creek, slopes across from the parking lot entrance on Lower Twin Rocks Road, along the southern fenceline near a series of livestock ponds, and along the westernmost portion of the water pipeline corridor. It was certainly introduced in a seed mix used to revegetate ground disturbed by historic water pipeline construction, road construction, and seed potato field restoration. The species was likely planted to attempt to enhance forage production for livestock in addition to erosion control. These stands are relatively dense on upper floodplain terraces, but are sparse on the old agricultural fields and portions of the water pipeline.

**Global Environment:**

### VEGETATION DESCRIPTION

**Florissant Fossil Beds NM Vegetation:** This exotic grassland is characterized by nearly pure stands of *Bromus inermis,* a medium-tall rhizomatous grass. Dense stands occurred on mesic sites along the monument roads and in sites used as grass hay fields until recently; these are found near the eastern monument boundary at Lower Twin Rock Road, at the southern monument boundary near a series of stock ponds, and at the western monument boundary adjacent to the water pipeline corridor. On sites that were more recently hayed and mesic sites, *Bromus inermis* cover values ranged from approximately 55–70%. Commonly associated species included the exotic *Poa pratensis* and *Agropyron cristatum* in more mesic pastures and swales. Older stands that had been planted on historic seed potato fields and on dry hilltops, ridges, and flats are reverting to native, disturbance-oriented species. Where moisture collects along terraces within historic potato fields, *Bromus inermis* is dominant; however, on dry lands between terraces, *Bromus inermis* cover was approximately 15%, and *Muhlenbergia filiculmis* had a cover value of approximately 25%. Within dense stands of *Bromus inermis*, the ground cover value for litter exceeds 95%, however, on drier sites bare soil and gravel provide approximately 70–80% of the ground cover.

An effort to revegetate the water pipeline corridor with native grassland species is being planned and seed is being collected from the monument to provide local genetic stock.

**Global Vegetation:**

**Global Dynamics:**

## MOST ABUNDANT SPECIES

**Florissant Fossil Beds NM**

| Stratum | Species |
|---|---|
| Dwarf-shrub | *Artemisia frigida* |
| Graminoid | *Bromus inermis, Agropyron cristatum, Poa pratensis, Muhlenbergia filiculmis, Koeleria macrantha* |

**Global**

| Stratum | Species |
|---|---|

## CHARACTERISTIC SPECIES

**Florissant Fossil Beds NM**

| Stratum | Species |
|---|---|
| Graminoid | *Bromus inermis, Agropyron cristatum, Muhlenbergia filiculmis* |

**Global**

| Stratum | Species |
|---|---|

## OTHER NOTEWORTHY SPECIES

**Florissant Fossil Beds NM**

**Global**

| Stratum | Species |
|---|---|

**GLOBAL SIMILAR ASSOCIATIONS:**

## GLOBAL STATUS AND CLASSIFICATION COMMENTS

**Global Conservation Status Rank:**

**Global Classification Comments:**

## ELEMENT DISTRIBUTION

**Florissant Fossil Beds NM Range:** This semi-natural herbaceous vegetation occurs on disturbed sites and in moist drainages throughout the monument. The purest stands lie adjacent to Lower Twin Rock Road, south of the parking lot entrance, adjacent to Teller County 1, and in drainages and on slopes adjacent to the water pipeline corridor near the western edge of the monument.

**Global Range:**

**Nations:** US
**States/Provinces:** CO

## ELEMENT SOURCES

**Florissant Fossil Beds NM Inventory Notes:** Plots 1, 22, 49, 57
**Classification Confidence:** **Identifier:** CEGL005264
**REFERENCES:**